<u>Amendments of the Claims</u>

The following listing of claims will replace all prior versions, and listings, of claims in the above-identified patent application:

<u>Listing of Claims</u>

1. (previously presented)   A method for analyzing price data, representing price in a financial system that varies over time, said method comprising:

beginning at a first initial moment, acquiring
5   said price data during an initial first duration and determining an initial first range of said price data between a minimum value during said initial first duration and a maximum value during said initial first duration;

comparing said first range of said price data
10   during said initial first duration to a range of said price data expected, based on Brownian motion, during said initial first duration;

when said first range of said price data during said initial first duration exceeds said range of said price
15   data expected, based on Brownian motion, during said initial first duration, concluding that said system is varying in a trend; and

when said first range of said price data during said initial first duration is less than said range of said
20   price data expected, based on Brownian motion, during said initial first duration, concluding that said system is congesting.

2. (previously presented)   The method of claim 1 wherein said comparing comprises comparing said initial first range of said price data to a generated Brownian motion standard.

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3. (previously presented)   The method of claim 2 further comprising, after said acquiring and before said comparing, applying bootstrapping techniques to said price data.

4. (previously presented)   The method of claim 1 further comprising:

beginning at said first initial moment, acquiring said price data during an initial second duration of
5 which said initial first duration is a multiple and determining an initial second range of said price data between a minimum value during said initial second duration and a maximum value during said initial second duration; wherein said comparing comprises:
10   computing an actual relationship of said initial first range to said initial second range and comparing said actual relationship of said initial first range to said initial second range to an expected relationship of said initial first range to said initial second range.

5. (currently amended)   The method of claim 4 wherein:

said computing an actual relationship comprises forming a ratio of said initial first range to said initial
5 second range; and

said comparing ~~and determining comprise~~ <u>said actual relationship to said expected relationship comprises</u>:

when said ratio exceeds a square root of said multiple, concluding that said system is varying in a trend,
10 and

when said ratio is less than said square root, concluding that said system is congesting.

6. (previously presented)   The method of claim 4 further comprising:

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beginning at a subsequent initial moment,
acquiring said price data during a subsequent first duration

5   and determining a subsequent first range of said price data
between a minimum value during said subsequent first duration
and a maximum value during said subsequent first duration;

beginning at said subsequent initial moment,
acquiring said price data during a subsequent second duration

10 of which said subsequent first duration is said multiple and
determining a subsequent second range of said price data
between a minimum value during said subsequent second duration
and a maximum value during said subsequent second duration;

computing an actual relationship of said

15 subsequent first range to said subsequent second range; and

comparing said actual relationship of said
subsequent first range to said subsequent second range to an
expected relationship of said subsequent first range to said
subsequent second range, and determining from said comparison

20 of said actual relationship of said subsequent first range to
said subsequent second range to said expected relationship of
said subsequent first range to said subsequent second range
how said system is varying.

7. (currently amended) The method of claim 6
further comprising repeating, at respective multiple
additional subsequent initial moments:

acquiring said price data during each

5 respective subsequent first duration;

acquiring said price data during each
respective subsequent second duration;

computing a respective actual relationship of
each respective subsequent first range to each respective

10 subsequent second range;

comparing each respective actual relationship
of each respective subsequent first range to each respective
subsequent second range to a respective expected relationship

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of each respective subsequent first range to each respective
15 subsequent second range to obtain a respective comparison; and
determining from each respective comparison how
said system is varying.

8. (currently amended)   The method of claim 7
wherein, for each of said initial moments:
said computing a respective actual relationship
of each respective subsequent first range to each respective
5 subsequent second range comprises forming a respective ratio
of each respective initial first range to each respective
initial second range; and
said comparing said respective actual
relationship to said respective expected relationship, and
10 said determining, comprises comprise:
when said respective ratio exceeds a square
root of said multiple, concluding that said system is varying
in a trend, and
when said respective ratio is less than said
15 square root, concluding that said system is congesting.

9. (previously presented)   The method of claim 8
further comprising comparing respective ones of said ratio for
two consecutive ones of said initial moments and:
when each of said respective ones of said ratio
5 exceeds a square root of said multiple and a subsequent
respective one of said ratio exceeds a prior respective one of
said ratio, concluding that said system is varying in a trend
and said trend is accelerating;
when each of said respective ones of said ratio
10 exceeds said square root and a prior respective one of said
ratio exceeds a subsequent respective one of said ratio,
concluding that said system is varying in a trend and said
trend is decelerating;

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when each of said respective ones of said ratio
15 is less than said square root and a prior respective one of
said ratio exceeds a subsequent respective one of said ratio,
concluding that said system is congesting and said congestion
is accelerating;

when each of said respective ones of said ratio
20 is less than said square root and a subsequent respective one
of said ratio exceeds a prior respective one of said ratio,
concluding that said system is congesting and said congestion
is decelerating;

when a prior respective one of said ratio is
25 less than said square root and a subsequent respective one of
said ratio exceeds said square root, concluding that said
system has moved from congestion into a trend; and

when a prior respective one of said ratio
exceeds said square root and a subsequent respective one of
30 said ratio is less than said square root, concluding that said
system has moved from a trend into congestion.

10. (previously presented)   The method of claim 9
further comprising:

when said system is in a current condition of
congestion or trend, comparing respective ones of said ratio
5 for three consecutive respective ones of said initial moments
separated by equal time intervals; and

deriving, from said comparison of said
respective ones of said ratio for three consecutive respective
ones of said initial moments, a prediction of when said system
10 will move from said current condition of congestion or trend
to another condition of congestion or trend.

11. (previously presented)   The method of claim 10
further comprising displaying said prediction in the form of a
closed curve with price data points from said three

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consecutive respective ones of said initial moments identified
5   on said closed curve.

12. (previously presented)   The method of claim 1
further comprising displaying said initial first range of said
price data and said expected range of said price data.

13. (original) The method of claim 12 wherein said
displaying comprises displaying a line graph.

14. (original) The method of claim 12 wherein said
displaying comprises displaying an orbital plot.

15-16. (cancelled)

17. (previously presented)   The method of claim 1
further comprising:
        beginning at a subsequent initial moment,
acquiring said price data during a subsequent first duration
5   and determining a subsequent first range of said price data
between a minimum value during said subsequent first duration
and a maximum value during said subsequent first duration; and
        comparing said subsequent first range of said
price data during said subsequent first duration to an
10 expected range of said price data during said subsequent first
duration.

18. (previously presented)   The method of claim 17
further comprising:
        beginning at said subsequent initial moment,
acquiring said price data during a subsequent second duration
5   of which said subsequent first duration is a multiple and
determining a subsequent second range of said price data
between a minimum value during said subsequent second duration
and a maximum value during said subsequent second duration;
wherein said comparing said subsequent first range of said

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10 price data during said subsequent first duration to an
expected range of said price data during said subsequent first
duration comprises:

         computing an actual relationship of said
subsequent first range to said subsequent second range; and
15   comparing said actual relationship of said
subsequent first range to said subsequent second range to an
expected relationship of said subsequent first range to said
subsequent second range, and determining from said comparison
of said actual relationship of said subsequent first range to
20 said subsequent second range to said expected relationship of
said subsequent first range to said subsequent second range
how said system is varying.

       19. (currently amended) The method of claim 18
further comprising repeating, at multiple additional
subsequent initial moments:

         acquiring said price data during each
5 respective subsequent first duration;
         acquiring said price data during each
respective subsequent second duration;
         computing a respective actual relationship of
each respective subsequent first range to each respective
10 subsequent second range;
         comparing each respective actual relationship
of each respective subsequent first range to each respective
subsequent second range to a respective expected relationship
of each respective subsequent first range to each respective
15 subsequent second range to obtain a respective comparison; and
         determining from each respective comparison how
said system is varying.

       20. (currently amended) The method of claim 17
further comprising repeating, beginning at multiple additional
subsequent initial moments:

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acquiring said price data during each
5 respective subsequent first duration;

computing a respective actual range of said
price data between a minimum value during each respective
subsequent first duration and a maximum value during each
respective subsequent first duration;

10 comparing each respective actual range during
each respective subsequent first duration to a respective
expected range during each respective subsequent first
duration to obtain a respective comparison; and

determining from each respective comparison how
15 said system is varying.

21. (previously presented)   The method of claim 20
further comprising repeating, at multiple additional sets of
multiple initial moments:

said acquiring said price data during each
5 respective subsequent first duration;

said computing a respective actual range of
said price data between a minimum value during each respective
subsequent first duration and a maximum value during each
respective subsequent first duration; and

10 said comparing each respective actual range
during each respective subsequent first duration to a
respective expected range during each respective subsequent
first duration; wherein:

said duration differs for each said set.

22. (previously presented)   Apparatus for
analyzing price data, representing price in a financial system
that varies over time, said apparatus comprising:

means for, beginning at a first initial moment,
5 acquiring said price data during an initial first duration and
determining an initial first range of said price data between

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a minimum value during said initial first duration and a
maximum value during said initial first duration;

              means for comparing said first range of said

10   price data during said initial first duration to a range of
said price data expected, based on Brownian motion, during
said initial first duration; and

              means for concluding:

              when said first range of said price data during

15   said initial first duration exceeds said range of said price
data expected, based on Brownian motion, during said initial
first duration, that said system is varying in a trend, and

              when said first range of said price data during
said initial first duration is less than said range of said

20   price data expected, based on Brownian motion, during said
initial first duration, that said system is congesting.

       23. (previously presented)   The apparatus of
claim 22 further comprising a Brownian motion standard
generator; wherein:

              said comparing means compares said initial

5   first range of said price data to a Brownian motion standard
generated by said Brownian motion standard generator.

       24. (cancelled)

       25. (previously presented)   The apparatus of
claim 22 further comprising:

              means for, beginning at said first initial
moment, acquiring said price data during an initial second

5   duration of which said initial first duration is a multiple
and determining an initial second range of said price data
between a minimum value during said initial second duration
and a maximum value during said initial second duration;
wherein:

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10   said comparing means computes an actual
relationship of said initial first range to said initial
second range and compares said actual relationship of said
initial first range to said initial second range to an
expected relationship of said initial first range to said
15 initial second range.

          26. (previously presented)   The apparatus of
claim 25 wherein:
          said means for comparing computes said actual
relationship by forming a ratio of said initial first range to
5 said initial second range; and
          said concluding means:
          concludes that said system is varying in a
trend when said ratio exceeds a square root of said multiple,
and
10   concludes that said system is congesting when
said ratio is less than said square root.

          27. (previously presented)   The apparatus of
claim 25 further comprising:
          means for, beginning at a subsequent initial
moment, acquiring said price data during a subsequent first
5 duration and determining a subsequent first range of said
price data between a minimum value during said subsequent
first duration and a maximum value during said subsequent
first duration;
          means for, beginning at said subsequent initial
10 moment, acquiring said price data during a subsequent second
duration of which said subsequent first duration is said
multiple and determining a subsequent second range of said
price data between a minimum value during said subsequent
second duration and a maximum value during said subsequent
15 second duration;

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means for computing an actual relationship of said subsequent first range to said subsequent second range; and

means for comparing said actual relationship of said subsequent first range to said subsequent second range to an expected relationship of said subsequent first range to said subsequent second range, and for determining from said comparison of said actual relationship of said subsequent first range to said subsequent second range to said expected relationship of said subsequent first range to said subsequent second range how said system is varying.

28. (previously presented)   The apparatus of claim 22 further comprising means for displaying said initial first range of said price data and said expected range of said price data.

29. (original) The apparatus of claim 28 wherein said displaying means displays a line graph.

30. (original) The apparatus of claim 28 wherein said displaying means displays a orbital plot.

31-32. (cancelled)

33. (previously presented)   The apparatus of claim 22 further comprising:

means for, beginning at a subsequent initial moment, acquiring said price data during a subsequent first duration and determining a subsequent first range of said price data between a minimum value during said subsequent first duration and a maximum value during said subsequent first duration; and

means for comparing said subsequent first range of said price data during said subsequent first duration to an

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expected range of said price data during said subsequent first
duration.

34. (previously presented)   The apparatus of
claim 33 further comprising:
        means for, beginning at said subsequent initial
moment, acquiring said price data during a subsequent second
5   duration of which said subsequent first duration is a multiple
and determining a subsequent second range of said price data
between a minimum value during said subsequent second duration
and a maximum value during said subsequent second duration;
wherein said comparing means computes an actual relationship
10 of said subsequent first range to said subsequent second range
and compares said actual relationship of said subsequent first
range to said subsequent second range to an expected
relationship of said subsequent first range to said subsequent
second range, and determines from said comparison of said
15 actual relationship of said subsequent first range to said
subsequent second range to said expected relationship of said
subsequent first range to said subsequent second range how
said system is varying.

35. (currently amended) Apparatus for analyzing
price data, representing price in a financial system that
varies over time, said apparatus comprising:
        a data feed that, beginning at a first initial
5   moment, acquires said price data during an initial first
duration; and
        a processor ~~that determines~~ programmed with
instructions to determine an initial first range of said price
data between a minimum value during said initial first
10 duration and a maximum value during said initial first
duration; wherein said instructions comprise:
        ~~said processor compares~~ instructions to compare
said first range of said price data during said initial first

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duration to a range of said price data expected, based on
15   Brownian motion, during said initial first duration; and
                    ~~said processor concludes~~ <u>instructions to</u>
<u>conclude</u>:
                    that said system is varying in a trend when
said first range of said price data during said initial first
20   duration exceeds said range of said price data expected, based
on Brownian motion, during said initial first duration, and
                    that said system is congesting when said first
range of said price data during said initial first duration is
less than said range of said price data expected, based on
25   Brownian motion, during said initial first duration.

        36. (currently amended) The apparatus of claim 35
further comprising a Brownian motion standard generator;
wherein:
                    said ~~processor compares~~ <u>instructions to compare</u>
5   <u>said first range of said price data during said initial first</u>
<u>duration to a range of said price data expected based on</u>
<u>Brownian motion comprise instructions to compare</u> said initial
first range of said price data to a Brownian motion standard
generated by said Brownian motion standard generator.

        37. (previously presented)   The apparatus of
claim 36 wherein said processor applies bootstrapping
techniques to said acquired price data.

        38. (currently amended) The apparatus of claim 35
wherein:
                    said data feed, beginning at said first initial
moment, acquires said price data during an initial second
5   duration of which said initial first duration is a multiple;
                    said ~~processor determines~~ <u>instructions comprise</u>
<u>instructions to determine</u> an initial second range of said
price data between a minimum value during said initial second

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duration and a maximum value during said initial second
10   duration; and

    said ~~processor compares~~ <u>instructions comprise</u>
<u>instructions to compare</u> an actual relationship of said initial
first range to said initial second range to an expected
relationship of said initial first range to said initial
15   second range, and ~~determines~~ <u>to determine</u> from said comparison
how said system is varying.

    39. (currently amended) The apparatus of claim 38
wherein said ~~processor forms~~ <u>instructions comprise:</u>
    <u>instructions to form</u> a ratio of said initial
first range to said initial second range<u>;</u> [[and:]]
5   ~~concludes~~ <u>instructions to conclude</u> that said
system is varying in a trend when said ratio exceeds a square
root of said multiple; and
    ~~concludes~~ <u>instructions to conclude</u> that said
system is congesting when said ratio is less than said square
10   root.

    40. (currently amended) The apparatus of claim 38
wherein:
    said data feed, beginning at a subsequent
initial moment, acquires said price data during a subsequent
5   first duration;
    said ~~processor determines~~ <u>instructions comprise</u>
<u>instructions to determine</u> a subsequent first range of said
price data between a minimum value during said subsequent
first duration and a maximum value during said subsequent
10   first duration;
    said data feed, beginning at said subsequent
initial moment, acquires said price data during a subsequent
second duration of which said subsequent first duration is
said multiple;

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15   said ~~processor determines~~ <u>instructions comprise
instructions to determine</u> a subsequent second range of said
price data between a minimum value during said subsequent
second duration and a maximum value during said subsequent
second duration; and

20   said ~~processor compares~~ <u>instructions comprise
instructions to compare</u> an actual relationship of said
subsequent first range to said subsequent second range to an
expected relationship of said subsequent first range to said
subsequent second range, and determines from said comparison
25   how said system is varying.

       41. (previously presented)   The apparatus of
claim 35 further comprising a display that displays said
initial first range of said price data and said expected range
of said price data.

       42. (original) The apparatus of claim 41 wherein
said display displays a line graph.

       43. (original) The apparatus of claim 41 wherein
said display displays a orbital plot.

       44-45. (cancelled)

       46. (currently amended)   The apparatus of claim 35
wherein:
       said data feed, beginning at a subsequent
initial moment, acquires said price data during a subsequent
 5   first duration;
       said ~~processor determines~~ <u>instructions comprise
instructions to determine</u> a subsequent first range of said
price data between a minimum value during said subsequent
first duration and a maximum value during said subsequent
10   first duration; and

said ~~processor compares~~ <u>instructions comprise instructions to compare</u> said subsequent first range of said price data during said subsequent first duration to an expected range of said price data during said subsequent first
15 duration.

47. (currently amended) The apparatus of claim 46 wherein:

said data feed, beginning at said subsequent initial moment, acquires said price data during a subsequent
5 second duration of which said subsequent first duration is a multiple;

said ~~processor determines~~ <u>instructions comprise instructions to determine</u> a subsequent second range of said price data between a minimum value during said subsequent
10 second duration and a maximum value during said subsequent second duration;

said ~~processor compares~~ <u>instructions comprise instructions to compare</u> an actual relationship of said subsequent first range to said subsequent second range to an
15 expected relationship of said subsequent first range to said subsequent second range, and determines from said comparison how said system is varying.

48. (previously presented)   A method for analyzing price data, representing price in a financial system that varies over time, said method comprising:

beginning at an initial moment, acquiring said
5 price data during a duration of a first length of time and determining a first range of said price data between a minimum value during said duration of said first length of time and a maximum value during said duration of said first length of time;

10   determining a second range, expected based on Brownian motion, of said price data during a duration of a second length of time beginning at said initial moment; and

           monitoring an instantaneous value of said price data during said duration of said second length of time and

15   determining that said system is varying in a trend when said instantaneous value is outside said expected second range.

           49. (previously presented)   The method of claim 48 wherein:

           said duration of said second length of time is a multiple of said duration of said first length of time; and

5   said expected second range is a product of said first range and a square root of said multiple.

           50-51. (cancelled)

           52. (previously presented)   Apparatus for analyzing price data, representing price in a financial system that varies over time, said apparatus comprising:

           means for, beginning at an initial moment,

5   acquiring said price data during a duration of a first length of time and determining a first range of said data between a minimum value during said duration of said first length of time and a maximum value during said duration of said first length of time;

10   means for determining a second range, as expected based on Brownian motion, of said price data during a duration of a second length of time beginning at said initial moment; and

           means for monitoring an instantaneous value of

15   said price data during said duration of said second length of time and determining that said system is varying in a trend when said instantaneous value is outside said expected second range.

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53. (previously presented)   The apparatus of claim 52 wherein:

said duration of said second length of time is a multiple of said duration of said first length of time; and

5   said expected second range is a product of said first range and a square root of said multiple.

54-55. (cancelled)

56. (currently amended) Apparatus for analyzing price data, representing price in a financial system that varies over time, said apparatus comprising:

a data feed for, beginning at an initial
5   moment, acquiring said price data during a duration of a first length of time and monitoring an instantaneous value of said price data during a duration of a second length of time beginning at said initial moment; and

a processor [[for]] programmed with
10 instructions to:

~~determining~~ determine a first range of said price data between a minimum value during said duration of said first length of time and a maximum value during said duration of said first length of time,

15   ~~determining~~ determine a second range, expected based on Brownian motion, of said price data during said duration of said second length of time beginning at said initial moment, and

~~determining~~ determine that said system is
20 varying in a trend when said instantaneous value is outside said expected second range.

57. (previously presented)   The apparatus of claim 56 wherein:

said duration of said second length of time is a multiple of said duration of said first length of time; and

5   said expected second range is a product of said
first range and a square root of said multiple.

          58-59. (cancelled)

          60. (withdrawn)   A method for offering to
subscribers analysis of data that vary over time, said method
comprising:
          beginning at each of a plurality of initial
5   moments, acquiring said data during a plurality of respective
first durations;
          dividing said data into respective portions,
each of said respective portions including data for one or
more of said plurality of respective first durations;
10   transmitting said data to respective computers
operated by at least some of said subscribers at the option of
each individual subscriber;
          determining at each said respective computer,
for each respective first duration in said respective data
15   portion a respective first range of said data between a
minimum value during said respective first duration and a
maximum value during said respective first duration;
          determining at each said respective computer,
for each respective first duration in said respective data
20   portion a respective expected range of said during said
respective first duration;
          collecting said respective determinations of
said respective computers;
          comparing each respective range of said data
25   during each respective first duration to each respective
expected range of said data during said respective first
duration; and
          transmitting said comparison to said
subscribers.

61. (withdrawn)   The method of claim 60 further comprising charging a respective subscription fee to each of said subscribers, said respective subscription fee being lower for a subscriber among said at least some of said subscribers than for a subscriber outside said at least some of said subscribers.

62. (withdrawn)   The apparatus of claim 56 wherein said system is a biological system and said data are biological data.

63. (withdrawn)   The apparatus of claim 56 wherein said system is a meteorological system and said data are meteorological data.

64. (withdrawn)   The apparatus of claim 52 wherein said system is a biological system and said data are biological data.

65. (withdrawn)   The apparatus of claim 52 wherein said system is a meteorological system and said data are meteorological data.

66. (withdrawn)   The method of claim 48 wherein said system is a biological system and said data are biological data.

67. (withdrawn)   The method of claim 48 wherein said system is a meteorological system and said data are meteorological data.

68. (withdrawn)   The apparatus of claim 35 wherein said system is a biological system and said data are biological data.

69. (withdrawn)   The apparatus of claim 35 wherein said system is a meteorological system and said data are meteorological data.

70. (withdrawn)   The apparatus of claim 22 wherein said system is a biological system and said data are biological data.

71. (withdrawn)   The apparatus of claim 22 wherein said system is a meteorological system and said data are meteorological data.

72. (withdrawn)   The method of claim 1 wherein said system is a biological system and said data are biological data.

73. (withdrawn)   The method of claim 1 wherein said system is a meteorological system and said data are meteorological data.